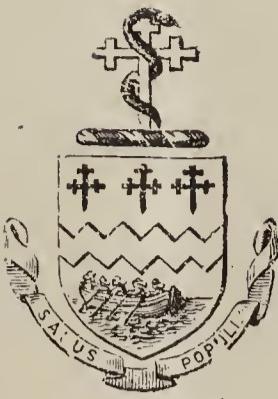


MAY 17 1896

BOROUGH OF SOUTHPORT.



• REPORT •

UPON THE

Mortality - and - Sickness

OF THE

URBAN SANITARY DISTRICT

OF

THE BOROUGH OF SOUTHPORT,

FOR

THE YEAR 1896,

BY

HENRY H. VERNON, M.D., F.R.S.E.,

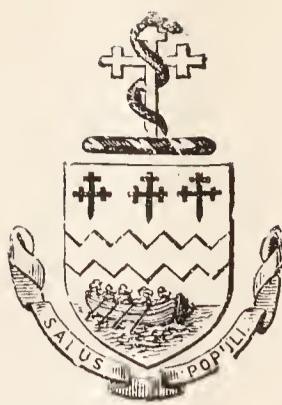
Fellow of the Incorporated Society of Medical Officers of Health,

MEDICAL OFFICER OF HEALTH.

SOUTHPORT:

PRINTED BY CROMPTON AND LYMATH, HOGHTON STREET.

BOROUGH OF SOUTHPORT.



~ REPORT ~

UPON THE

Mortality - and - Sickness

OF THE

URBAN SANITARY DISTRICT

OF

THE BOROUGH OF SOUTHPORT,

FOR

THE YEAR 1896,

BY

HENRY H. VERNON, M.D., F.R.S.E.,

Fellow of the Incorporated Society of Medical Officers of Health,

MEDICAL OFFICER OF HEALTH.

SOUTHPORT:

PRINTED BY CROMPTON & LYMATH, HOGHTON STREET.



Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

<https://archive.org/details/b30119662>

TO THE CHAIRMAN AND MEMBERS
— OF THE —
HEALTH COMMITTEE OF THE CORPORATION OF SOUTHPORT.

GENTLEMEN,

The estimated population of the Borough of Southport at the middle of the year 1896, based upon the annual rate of increase of the said population during the intercensal 1881—91 was 47,243.

If anyone is inclined to doubt the addition of 1172 Souls to the population of the Borough in the short space of one year the number of houses built and certified as ready for habitation each year will probably furnish a good reason for doubting that doubt.

The number of new houses built and certified in the last three years were :—

TABLE I.

1894	261
1895	310
1896	361
or a total of	932 houses in three years.

At the census of 1891 the number of Souls per inhabited house in Southport was 5·4871 so that on that basis the increment of population each of the three years quoted would have been—

TABLE II.

1894	1432
1895	1701
1896	1980

or 1,704 in each year. This of course is assuming that every house was taken and occupied which is not the case; but house building follows the demand as circumspectly as other trades, and supplies us with indications if not measures of increment of population.

If the assessments in the Rate-book for 1896 are taken as a measure of population the result is wonderfully near the result arrived at by observing the intercensal rate of increase : thus the "occupied houses" on the rate-book in March 1896 were 8,684 and this gives, at the rate of 5·4871 Souls per house, a population of 47,650 for the year, the intercensal estimate being 47,243, I see no reason therefore for forsaking the customary method of estimating the population. The small discrepancy in the results of the two ways of estimating, rather justifies than derogates from the validity of the usual method.

The sex distribution being assumed to remain as before the 47,243 inhabitants are divided into 19,338 males and 27,905 females.

The population and sex distribution in each ward observing the proportions in former years shows as follows :—

TABLE III.

	Males.	Females.	Persons.
Hesketh Ward	1252	1330	2582
Scarisbrick Ward	2295	2335	4630
East Ward.....	2239	4404	6643
Talbot Ward	5547	8452	13999
Craven Ward.....	4331	6414	10745
West Ward	3674	4970	8644

Differential rates of building operations in each ward probably detract from the value of these figures but there are no means of getting any better.

The varying proportion of males to females in each ward is very marked, and is intimately connected with the birth-rates which prevail in each ward, as a subsequent table will show. The proportions are :—

TABLE IV.

Hesketh Ward	100	males to 106 females.
Scarisbrick Ward.....	„ „	102 „
East Ward	„ „	196 „
Talbot Ward	„ „	152 „
Craven Ward	„ „	148 „
West Ward	„ „	135 „

The age and sex grouping of the population of the Borough is now set out in Table V., which exhibits the estimated numbers of each sex at 12 age groups in 1896.

TABLE V.

POPULATION OF SOUTHPORT, AT 12 GROUPS OF AGES, MALE AND FEMALE, IN 1896.

Groups.	Ages.		Males.		Females.		Persons.
1	Under 5	.....	2258	.....	2282	.....	4540
2	5—10	.....	2331	.....	2212	.....	4543
3	10—15	.....	2247	.....	2475	.....	4722
4	15—20	.....	1825	.....	3152	.....	4977
5	20—25	.....	1668	.....	3249	.....	4917
6	25—35	.....	2814	.....	4777	.....	7591
7	35—45	.....	2336	.....	3397	.....	5733
8	45—55	.....	1707	.....	2737	.....	4444
9	55—65	.....	1184	.....	2026	.....	3210
10	65—75	.....	734	.....	1166	.....	1900
11	75—85	.....	216	.....	382	.....	598
12	85 & up.	.....	18	.....	50	.....	68

This grouping is peculiar both as regards age and sex. The next Table shows how widely the local age grouping, even taking no account of sex distinction, differs from the national age grouping.

TABLE VI.

Number of persons at 12 age groups in Southport in 1896, compared with an equal population in England and Wales grouped after the national pattern.

Ages.	Southport.	England and Wales.
Under 5	4540	5788
5—10	4543	5520
10—15	4722	5250
15—20	4977	4806
20—25	4917	4311
25—35	7591	7131
35—45	5733	5423
45—55	4444	4068
55—65	3210	2699
65—75	1900	1624
75—85	598	552
85 & up	68	71

There is a deficiency accordingly of 2753 children in Southport under 15 years of age—*i.e.*, 2753 less than there would have been had the age grouping of the population been as in the country at large.

The fact that the first 4 age groups of 5 years' limit each, increase one after another is very peculiar. The normal state of matters would be a decrease of 982 persons in group 4 as compared with group 1—but as a matter of fact there is an increase of 437. The explanation is that group 1 is small on account of the low birth-rate, that groups 3 and 4 are helped up by the influx of children from outside, into private schools, though not to a sufficient extent to raise them to the national proportion and that group 4 is swollen by an influx of female domestic servants. The 5th age group is still more notably flooded in the same way so much so as to overtop the national proportion by 600 lives. There is food here for the School-board controversialist as well as for the Student of Social Science and Sanitary Statistics.

But the following Table displays the abnormal local age and sex distribution more thoroughly than any other method as it sets out :—

The proportionate number of Males, Females and persons per 1000 persons at 12 age groups in Southport and England and Wales respectively :—

TABLE VII

Ages.	MALES.		FEMALES.		TOTAL.	
	Southport.	Eng and W.	Southport.	Eng. and W.	Southport.	Eng and W.
Under 5	47·747	60·945	48·278	61·575	96·025	122·52
5—10.....	49·389	58·388	46·804	58·672	96·193	117·06
10—15.....	47·433	55·542	52·312	55·598	99·745	111·14
15—20	38·691	50·519	66·657	51·221	105·348	101·74
20—25.....	35·357	43·008	68·711	48·242	104·068	91·25
25—35.....	59·629	72·203	101·048	78·747	160·677	150·95
35—45.....	49·462	55·549	71·849	59·231	121·311	114·78
45—55.....	36·202	41·092	57·914	45·008	94·116	86·10
55—65.....	25·093	26·553	43·399	30·577	68·492	57·13
65—75.....	15·553	15·340	24·562	18·790	40·115	34·13
75—85.....	4·372	5·016	8·114	6·674	12·486	11·69
85 & up.	·362	·559	1·062	·951	1·424	1·51
	409·290	484·714	590·710	515·286	1000·000	1000·00
	590·710	515·286				
	1000·000	1000·000				

The most striking educts of this table are :—

- 1.—That children under 15 years of age are in each 1000 of population in Southport deficient in number as compared with 1000 of the whole English population to the extent of 58·757 per 1000.

2.—That persons over 15 years of age in Southport are in a similar or rather identical excess per 1000 of population as compared with the normal English proportions.

3.—That males in Southport under 15 years of age are to females of the same age in Southport as 100 to 101·95.

4.—That males in Southport over 15 years of age are to females of the same age in Southport as 100 to 167·5.

5.—That the proportion of males to females in Southport is as 100 to 144.

6.—That the proportion of males to females in England and Wales is as 100 to 119.

7.—That the proportion of males in any given number of population in Southport to males in the same number in England and Wales is as 100 to 118·4; and

8.—That the proportion of females in any given number of population in Southport to females in the same number in England and Wales is as 100 to 87·2; and

9.—That between the ages of 15 and 45 there are 100 males to 107 females in England and Wales, and 100 males to 168 females in Southport—a disproportion which connotes many inconveniences, not to say dangers.

The Births in the Borough during 1896 were: males, 545, and females, 491, making a total of 1036, as against 1032 in 1895. The ratio of male children born to females was 111 of the former to 100 of the latter. This is a greater preponderance of births of males over births of females than occurred last year, and is considerably above the local average of 104·06 to 100. The natural increase of population *i.e.* the excess of births over deaths was 353. The total estimated increase of population over that of 1895 is 1172—so that the estimate of increase by immigration is 819. The resulting birth-rate is 21·93 per 1000 per annum, which is ·47 lower than the birth-rate for 1895.

The Births were distributed in the various Wards as follows:—

TABLE VIII.

	Males.	Females.	Total.
Hesketh Ward	37	44	81
Scarisbrick Ward.....	104	109	213
East Ward.....	20	16	36
Talbot Ward.....	158	148	306
Craven Ward.....	101	74	175
West Ward	125	100	225
	545	491	1036

The Birth-rates in each Ward in 1896 were :—

TABLE IX.

Hesketh Ward	31·37	per 1000 per annum.
Scarisbrick Ward	46·00	„ „
East Ward	5·42	„ „
Talbot Ward	21·86	„ „
Craven Ward	16·29	„ „
West Ward.....	26·03	„ „
Rural Wards	40·76	„ „
Urban Wards	18·53	„ „

Disproportionate sorting of the sexes contributes largely to the curious contrast of birth-rates in the several wards. In the Rural Wards where there are 100 males to 103·3 females the birth-rate is 40·76, while in East Ward where there are 100 males to 196·7 females, the birth-rate is only 5·42 !

The high birth-rate in the Rural Wards is very satisfactory. It shows that the means of subsistence are abundant, and that grinding poverty is not prevalent in that district.

The deaths registered within the Borough in 1896 were 330 of males, and 353 of females, making a total of 683 for the year. The resulting gross death-rate from all causes is 14·46 per 1000 per annum, and is the lowest annual death-rate ever recorded in the Borough. There will be various additions and deductions to make resulting in so-called corrections, but this rate and the Local rate arrived at, by striking out the deaths of moribund visitors are our customary criteria of health.

The deaths were distributed in the various Wards as follows :—

TABLE X.

	Males.	Females.	Persons.
Hesketh Ward	28	13	41
Scarisbrick Ward	45	40	85
East Ward.....	41	41	82
Talbot Ward	81	103	184
Craven Ward.....	79	84	163
West Ward	56	72	128
	<hr/>	<hr/>	<hr/>
	330	353	683

The death-rates in Wards in 1896 were :—

TABLE XI.

	Males.		Females.		Persons.
Hesketh Ward	22.36	.....	9.77	.....	15.88
Scarisbrick Ward.....	19.61	.....	17.13	.....	18.36
East Ward	18.31	.....	9.31	.....	12.34
Talbot Ward.....	14.60	.....	12.19	.....	13.14
Craven Ward	18.24	.....	13.10	.....	15.17
West Ward	15.24	.....	14.48	.....	14.81
The Borough	17.06	.....	12.65	.....	14.46
The Two Rural Wards.....	20.58	.....	14.46	.....	17.47
The Four Urban Wards ...	16.27	.....	12.38	.....	13.91

The difference between the death-rates of the Rural and Urban Wards is greater than in 1895, when it was only 1.35 per 1000. In 1896 it was 3.56. But happily the rate is absolutely lower in the Rural Wards than last year, though the improvement is not so conspicuous as in the Urban Wards.

The excess of the Male death-rate over the Female death-rate in 1896 was 4.41 per 1000. The average excess in 8 previous years was 4.815. There is evidently a wholly unnecessary waste of male life going on, for our population is not engaged in the more dangerous industries to such an extent as to augment the Male death-rate in any proportion commensurate with the male mortality.

The Annual Epitome of Vital Statistics follows. The "Local" death-rate, means the death-rate obtained by deducting the 89 "Bad Lives imported," otherwise "Moribund Visitors."

It will be as well to deal with the deaths of moribund visitors at once. The diseases of which they died in 1896 were as follows :—

TABLE XIII.

Phthisis	10
Respiratory Diseases	9
Diabetes	3
Cancer	3
Diseases of the Kidney	6
Diseases of the Heart and Great Blood Vessels	11
Diseases of the Brain and Spinal Cord	9
Diseases of the Liver.....	2
Diarrhœa	1
Injuries	1
Peritonitis	2
Old Age	6
All other Diseases	26
—	
Total.....	89

The moribund visitors of 1896 were more markedly moribund than in either 1895 or 1894. In 1894 they survived their arrival, on an average, 70 days ; in 1895, 62 days ; and in 1896, only 52 days. At the Convalescent Hospital 13 deaths occurred, after an average stay of rather less than 10 days. It is obvious, of course, that such cases ought to have stopped at home, but whether defective diagnosis or indifference to the interests of the patients, or indifference to the rules of the institution, are to blame for these untoward results cannot be said. It is quite time that this reckless deporting of dying people should be stopped.

TABLE XII.

VITAL STATISTICS, 1896.

ESTIMATED POPULATION, MIDDLE OF 1896.....47,243.

BIRTHS.		DEATHS.						ANNUAL RATE PER 1,000 LIVING.			
Male.	Female.	Male.	Female.	Resident more than 1 year.		Resident less than 1 year.		Deaths in Public Institutions.		Diseases of Respiratory Organs.	
545	491	330	353			572	111			Phthisis.	Violence.
—	—	13	5	2	10	1	95	54	17	47	
DEATHS FROM											
Seven Zymotic Diseases,	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus, Enteric, and Simple Fever.	Choleraic Diarrhoea.	Diseases of the Respiratory Organs.			
45	—	6	—	—	—	8	2	—			
DEATHS OF PERSONS AGED											
0—1 year.	1—5 years.	5—15 years.	15—25 years.	25—60 years.	60 years & upwards.	Births.	Deaths.	Last Year.		Diseases of Respiratory Organs, excluding Phthisis.	
134	60	22	31	195	241	21.93	Gross... Local... Zymotic	14.46	17.34	15.52	2.01
								12.57		.91	

The deaths under 1 year of age to 1000 births were 129.34, the corresponding mortality in 1896 for England and Wales being 148.

The ages at which the moribund visitors died were :—

TABLE XIV.

Ages.	Male.	Female.	Persons.
Under 5	7	4	11
5 to 10	1	1	2
10 „ 15	0	1	1
15 „ 20	0	1	1
20 „ 25	2	2	4
25 „ 35	4	1	5
35 „ 45	10	2	12
45 „ 55	4	9	13
55 „ 65	10	6	16
65 „ 75	4	13	17
75 „ 85	3	1	4
85 & up.	1	2	3
	—	—	—
	46	43	89

Of the 89 moribund visitors, 24 were under 35 years of age and 65 over that age. The number dying in public institutions was 24, and in private apartments 65.

I now append Forms **A** and **B**, as required by the Local Government Board, which will be followed by the Table showing the records for 26 years. This latter extensive Table is based upon deaths actually registered within the Borough, and, except as regards the column "Local Death-rate," which has the same significance as in the annual card, is without any so-called corrections.

(A)

TABLE XV.

TABLE OF DEATHS during the Year 1896, in the Southport Urban Sanitary District, classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities. (Columns for Population and Births are in Table B.)	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.										MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																							
	At all ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 upwards.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	Smallpox.	Scarlatina.	Diphtheria.	Membraneous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, & Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	TOTAL.			
SOUTHPORT (Town).....	636	133	57	17	28	208	193	Under 5 5 upwds.	10 3	4 1							1 3	5 1	8 1	9 1								2 50	124 61	190 56	2 2	124 258	446 9	
THE INFIRMARY.....	32	1	3	5	2	16	5	Under 5 5 upwds.																				2 4	2 2	2 6	4 15	4 28		
HYDROPATHIC HOSPITAL	1	—	—	—	—	—	—	Under 5 5 upwds.																						1 1	1 1			
CONVALESCENT HOSPITAL ...	13	—	—	—	—	1	11	1	Under 5 5 upwds.																		4 3	3 1	5 1	13 1				
CONVALESCENT HOME	1	—	—	—	—	—	1	—	Under 5 5 upwds.																					1 1	1 1			
CHILDREN'S SANATORIUM.....	—	—	—	—	—	—	—	Under 5 5 upwds.																										
ORMSKIRK WORKHOUSE	20	—	—	—	—	1	13	6	Under 5 5 upwds.																		4 2	4 4	10 4	20 3				
MOSS LANE HOSPITAL	7	—	4	2	—	1	—	Under 5 5 upwds.		4 1																				1 1	4 3			
TOTAL.....	710	134	64	24	32	250	206	Under 5 5 upwds.	14 4	4 1							3 3	1 3	5 1	8 1	9 1								27 58	2 70	2 64	2 2	126 290	198 512

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto...	27		4	2	1	14	6	Under 5 5 upwds.	4 1																					4 4	23 23	
Deaths occurring within the district among persons not belonging thereto.....	89	8	3	3	5	46	24	Under 5 5 upwds.		1																				8 2	11 46	11 78

(B)

TABLE XVI.

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health,
during the Year 1896, in the Southport Urban Sanitary District; classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	NEW CASES OF SICKNESS IN EACH LOCALITY, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.														NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.														
	Census 1891.	Estimated to Middle of 1896.		Aged under 5 or over 5.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13	
					Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Chicken Pox.		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	German Measles.	
SOUTHPORT (Town).....	41,406	47,243	1036	Under 5	160	11								1	86	7	2		78													
				5 upwds.	314	15			15	1			6	14	169	4	1		182	1											1	
THE INFIRMARY.....				Under 5		1														1												
CONVALESCENT HOME				Under 5																	1											
AUGHTON (ORMSKIRK RURAL SANITARY DISTRICT)				Under 5																	1											
TOTALS.....	41,406	47,243	1036	Under 5	161	11									1	86	7	2		79											1	
				5 upwds.	314	16			18	1			6	14	169	4	1		183	2											1	

* NOTE!—Measles, Whooping Cough, and Chicken Pox *ascertained*—not notifiable in this District.

TABLE XVII.

Vital Statistics.—Borough of Southport. (Twenty-six Years).

YEAR.	BIRTHS.		DEATHS.						DEATHS FROM														Deaths in Public Institu- tions.	Deaths under One Year of Age to 1,000 Births.	DEATHS OF PERSONS AGED						ANNUAL RATE PER THOUSAND LIVING.						POPULATION.
	Male.	Female.	Male.	Female.	Resident more than One Year.	Resident less than One Year.	Bad Lives Imported.	Seven Zymotic Diseases.	Small- pox.	Measles.	Scarlet Fever.	Diph- theria.	Whoop- ing Cough.	Fever	Diarrhoea	Cholera and Choleraic Diarrhoea	Diseases of the Respiratory Organs.	Phthisis.	Violence.	Imported Phthisis.	Imported Diseases of the Respiratory Organs.	0—1.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Births.	Deaths, Gross.	Deaths, Local.	Deaths, Zymotic.	Deaths, Native.	Deaths, Phthisis.	Deaths, Diseases of Respira- tory Organs, Gross.	Deaths, Diseases of Respira- tory Organs, Local.		
1871	264	242	221	203	—	—	—	65	24	3	5	2	6	15	10	1	56	59	11	—	—	38	170	86	47	20	37	140	94	27·97	23·44	—	3·59	—	3·09	—	18,086
1872	282	271	223	220	343	100	73	40	6	1	2	1	8	11	11	—	59	72	8	21	7	27	170	94	56	23	25	152	93	29·34	23·50	19·63	2·12	2·70	3·13	2·76	18,846
1873	278	300	239	220	353	106	65	78	—	1	32	—	3	22	20	—	58	68	9	33	8	32	164	95	50	39	24	139	112	29·43	23·37	20·06	3·97	1·78	2·95	2·64	19,638
1874	331	291	257	248	387	118	85	81	—	15	27	—	3	22	14	—	64	66	15	34	11	28	178	111	67	32	21	181	93	30·39	24·67	20·52	3·95	1·56	3·13	2·59	20,463
1875	336	331	306	287	475	118	81	70	1	—	7	1	6	39	16	—	90	87	12	27	13	31	183	123	55	27	43	193	152	28·81	25·65	22·14	3·02	2·59	3·89	3·33	23,113
1876	439	424	326	305	485	146	102	85	27	1	—	5	1	33	18	—	93	.83	14	34	23	44	153	132	44	28	51	215	161	33·19	24·27	20·34	3·27	1·88	3·57	2·69	25,997
1877	463	456	291	329	503	117	106	53	1	1	2	17	5	13	14	—	104	75	17	25	20	22	123	113	67	39	34	202	165	33·87	22·85	18·94	1·95	1·84	3·83	3·09	27,132
1878	481	444	332	314	518	128	111	70	—	4	14	7	—	14	31	—	94	87	16	32	14	20	151	140	70	29	37	200	170	32·66	22·81	18·89	2·47	1·94	3·32	2·82	28,317
1879	461	465	289	328	511	106	89	25	—	1	5	2	7	2	8	—	134	68	16	19	17	29	124	115	63	26	36	213	164	31·33	20·87	17·86	.84	1·65	4·53	3·95	29,554
1880	470	452	340	367	610	97	81	49	—	4	4	3	18	7	13	—	119	70	13	22	10	26	190	176	86	33	32	200	180	29·89	22·92	20·29	1·58	1·55	3·85	3·53	30,845
1881	457	470	290	278	462	106	90	44	—	5	11	6	5	10	7	1	94	73	13	28	12	24	100	92	76	27	30	173	170	28·48	17·64	14·84	1·36	1·39	2·92	2·55	32,191
1882	451	421	263	289	450	102	91	34	—	—	15	7	4	6	2	—	108	72	8	24	17	24	119	104	73	39	27	166	143	26·24	16·61	13·87	1·02	1·44	3·25	2·74	33,232
1883	438	411	323	335	558	100	93	51	—	8	7	4	18	6	8	—	144	72	10	17	7	29	134	114	85	30	38	195	196	24·97	19·35	16·61	1·50	1·61	4·23	4·03	34,077
1884	460	416	315	302	511	106	87	36	—	3	3	10	3	5	11	1	103	78	16	20	11	25	132	116	70	25	37	164	205	25·07	17·66	15·17	1·03	1·66	2·95	2·63	34,944
1885	453	419	317	317	517	117	93	37	—	4	3	8	12	5	5	—	108	65	20	19	15	28	141	123	71	24	27	193	196	24·34	17·72	15·10	1·03	1·28	3·01	2·60	35,833
1886	509	415	324	316	544	96	82	21	—	1	3	5	5	1	6	—	100	77	24	18	5	29	140	129	40	28	31	186	226	25·15	17·42	15·19	.57	1·61	2·72	2·59	36,745
1887	413	413	316	362	575	103	85	36	—	10	6	7	4	4	5	—	105	67	20	17	8	33	151	125	59	30	40	190	234	21·92	17·99	15·73	.96	1·33	2·79	2·57	37,681
1888	467	460	331	370	587	114	91	25	—	—	2	18	—	3	2	—	108	72	16	23	8	27	135	125	60	45	37	222	212	23·99	18·14	15·79	.65	1·27	2·80	2·59	38,640
1889	457	431	319	387	590	116	96	53	—	4	4	18	18	1	8	—	113	64	13	23	5	30	148	131	72	45	32	180	246	22·41	17·82	15·39	1·34	1·03	2·85	2·73	39,623
1890	428	431	319	386	584	121	95	41	—	4	13	14	5	2	3	—	127	65	14	19	7	41	122	105	63	41	28	225	243	21·14	17·35	15·01	1·01	1·13	3·13	2·95	40,631
1891	475	522	369	422	65																																

The deaths recorded in the preceding Tables as occurring in 1896 were distributed according to age and sex as follows :—

TABLE XVIII.

No.	Group.		Male.	Female.	Persons.
1	Under 5	114	80	194
2	5—10	8	6	14
3	10—15	4	4	8
4	15—20	5	9	14
5	20—25	8	9	17
6	25—35	15	24	39
7	35—45	30	26	56
8	45—55	24	35	59
9	55—65	38	44	82
10	65—75	44	73	117
11	75—85	36	30	66
12	85 & up	4	13	17
			330	353	683

The resulting death-rates at each age group are given in the next Table, side by side with the corresponding death-rates for England and Wales in 1891. The comparison is near enough to show the broad lines of difference between Southport Rates and English Rates.

TABLE XIX.

Age Group.	Southport. Male.	England. Male.	Southport. Female	England. Female.	Southport. Person.	England. Person.			
Under 5	50·49	...	64·5	35·06	...	53·6	42·73	...	59·0
5—10	3·43	...	4·7	2·71	...	4·7	3·08	...	4·7
10—15	1·78	...	2·6	1·62	...	2·9	1·69	...	2·7
15—20	2·74	...	4·2	2·86	...	4·3	2·81	...	4·2
20—25	4·80	...	5·7	2·77	...	5·2	3·46	...	5·4
25—35	5·33	...	7·9	5·02	...	7·1	5·14	...	7·5
35—45	12·84	...	13·5	7·65	...	11·1	9·77	...	12·2
45—55	14·06	...	22·4	12·79	...	17·2	13·28	...	19·7
55—65	32·09	...	41·1	21·72	...	33·4	25·55	...	37·0
65—75	59·95	...	81·2	62·61	...	70·6	61·58	...	75·4
75—85	166·67	...	168·0	78·53	...	148·3	110·37	...	156·8
85 & up	222·22	...	327·1	260·00	...	300·6	250·00	...	310·4

Comparing Southport and English rates group by group it appears that in 1896 the advantage as regards rates was in favour of Southport in every group. But the number of lives in each pattern of age groups comparing Southport and England was so distributed that while we gained as to the total yield of deaths in some age groups we lost in others, and the total or net result is that Southport only gains slightly.

The following Table shows the yield of deaths as it would have been in Southport in 1896, with Southport death-rates and English age grouping, in the same total of persons.

TABLE XX.

Ages.	English Grouping.		Southport Death-rates.		Deaths resulting.
Under 5	5788	×	42.73	=	247.32124
5—10	5320	×	3.08	=	17.00160
10—15	5250	×	1.69	=	8.87250
15—20	4806	×	2.81	=	13.50486
20—25	4311	×	3.46	=	14.91606
25—35	7131	×	5.14	=	36.65334
35—45	5423	×	9.77	=	52.98271
45—55	4068	×	13.28	=	54.02304
55—65	2699	×	25.55	=	68.95945
65—75	1624	×	61.58	=	100.00592
75—85	552	×	110.37	=	60.92424
85 & up.	71	×	250.00	=	17.75000
	47,243				692.91496

The actual deaths having been 683, the gain, as said before, is only small.

The death-rate resulting from the deaths yielded by English grouping and Southport rates is 14.67. The actual gross-rate was 14.46, so that our gain upon a normally grouped population of the same number due solely to our abnormal age and sex distribution is only .21 per 1000 per annum. The result hardly seems worth the labour, but such is the jealousy of health resorts one towards another that unless such purely statistical advantages as accrue in consequence of purely statistical factors are worked out and discounted, there is a danger of being accused of "concealing the facts," or, of "being hopelessly ignorant of modern statistical methods."

It will be convenient here to strike the final death-rate which results from the different additions and deductions required or allowed by the Local Government Board, and as further modified by allowance for age and sex distribution.

The deaths registered within the Borough in 1896 were 683. To these must be added 7 deaths which occurred at the Moss Lane Borough Hospital, making 690. The Ormskirk Workhouse yielded 20 deaths of persons admitted from the Southport Division of North Meols, and this raises the deaths to 710. From this total I deduct 89 deaths of persons dying within the district not belonging thereto, and who arrived bringing with them the diseases of which they died on an average within 52 days of their arrival. This leaves the number of deaths upon which to strike a rate as 621, and the rate itself is equal to 13·14 per 1000 per annum, but must be raised by ·21 to 13·35 per 1000—the ·21 being something like the penalty in a handicap.

The death-rate in England and Wales during 1896 was 17·1 per 1000. The Southport rate thus being 3·75 blow that of the Country at large.

It is not amiss at this juncture to mark time as it were, and put on record the reduction of mortality brought about by sanitation in Southport since our Sewerage System was inaugurated. During 8 years which elapsed between the first attempt to compile the Vital Statistics of the Borough, and the year 1878, when the Main Sewers were completed and handed over to the Corporation by the Contractors, the average gross death-rate of the Borough was 23·82 per 1000 per annum. In 1896 it was 14·46. That is to say that if the old death-rate had ruled in 1896 as in the 8 years quoted, 442 deaths would have taken place in the Borough in 1896, which did not take place. That these 442 deaths have not occurred is humanly speaking the direct result of sanitary work.

The total number of cases of Infectious Disease in the Borough was far greater in 1896 than in 1895, or even than in 1894. Happily the mortality of the most prevalent Zymotic Diseases was very low, so that the total mortality of the inhabitants has not been thereby increased.

I present a Table showing the distribution of the various cases of Infectious Disease amongst the various Wards.

TABLE XXI.

Infectious Cases notified under the Act in that behalf:—

	Hesketh W.	Scarisbrick W.	East W.	Talbot W.	Craven W.	West W.	Total,						
Scarlet Fever ...	95	...	107	...	20	...	104	...	70	...	79	...	475
Diphtheria	3	...	7	...	2	...	4	...	6	...	5	...	27
Typhoid Fever ...	1	...	1	...	1	...	2	...	6	...	7	...	18
English Cholera ...	...	...	1	...	...	...	...	...	...	...	...	...	1
Continued Fever ...	...	...	...	...	...	...	...	...	1	...	...	...	1
Erysipelas	3	...	...	...	3	...	3	...	...	...	5	...	14
Puerperal Fever ...	...	...	1	...	...	...	...	...	4	...	1	...	6
	—	—	—	—	—	—	—	—	—	—	—	—	—
	102	...	117	...	26	...	113	...	87	...	97	...	542

TABLE XXII.

Infectious Cases ascertained, but not notifiable:—

	Hesketh W.	Scarisbrick W.	East W.	Talbot W.	Craven W.	West W.	Total.						
Measles.....	13	...	42	...	6	...	121	...	50	...	23	...	255
Whooping Cough ...	...	4	...	...	...	2	...	5	...	...	...	...	11
Diarrhoea	1	...	2	...	1	...	2	...	2	...	2	...	10
Chicken Pox ...	3	...	...	...	...	...	...	...	...	...	...	...	3
	—	—	—	—	—	—	—	—	—	—	—	—	—
	17	...	48	...	7	...	125	...	57	...	25	...	279

The net result of these tables shows that the number of cases of infectious disease notified and otherwise ascertained in 1896, in the several Wards, was:—

TABLE XXIII.

Hesketh Ward	119
Scarisbrick Ward	165
East Ward.....	33
Talbot Ward	238
Craven Ward	144
West Ward	122
	—
Total	821

The number of cases per 1000 inhabitants in each Ward comes out as follows:—

TABLE XXIV.

Hesketh Ward	46
Scarisbrick Ward	35
East Ward.....	5
Talbot Ward.....	17
Craven Ward.....	13
West Ward	14

Comparing the Rural and Urban Wards, the rates were—

Rural	39 per 1000
Urban	13 ,,

i.e. to say the rural rate is three times as great as the urban.

The enormous preponderance of Zymotic diseases in the rural, as compared with the urban, wards is most unsatisfactory. I take it that the rural wards, being mostly working-class districts, "the reason why" is to be found to a considerable extent in the habits of the people. The process of "rubbing in" the conviction that where there is infectious disease people should "keep themselves to themselves" is a very slow one. It is at once irritating, disheartening, and lamentable, that people should be so blind to their own interests and the safety of their own offspring as to indulge in the unrestrained and reckless intercommunication which is still the prevailing custom of the working classes. Trades' unions have done something of late years towards promoting isolation and segregation in such cases, but their action is necessarily very circumscribed.

The Elementary Schools again are a notable means of spreading disease amongst the children of the working classes. The extent to which this obtains varies in different districts, according to the density of population on a given area. In very densely populated towns and cities it may very possibly be that children are already so overcrowded in houses or on areas, that the bringing them together in large numbers in schools does not materially aggravate the conditions making for the spread of disease; but in rural and semi-rural districts there can be no doubt that the Elementary Schools are an important factor in the spread of disease, and that the necessary machinery for minimising the evil does not exist. It seems somewhat cruel to hunt children into school, and not to provide adequate means

of saving them from the natural and inevitable effects of massing them together. The provisions of the "code" in that behalf now in force are utterly inadequate, amounting to little more than a power "to close the stable door when the mare is gone."

X There is another factor, however, at work here which to my mind is not duly appreciated here or anywhere else. I allude to the "midden privy." This unhappy store-place for human excreta and breeding ground for germs of disease, so deeply rooted in the good graces of Lancashire and other parts of the north of England, is to my mind directly responsible for a share—and no inconsiderable one—in causing the greater prevalence of infectious disease amongst working-class populations than amongst populations with better sanitary conveniences. I think it acts in two ways—first by reducing the tone of health generally and undermining the resisting power against infection, and secondly by fostering the growth of the bacteria of such diseases as may happen to break out in a locality.

The facts, as they affect this Borough, are very simple. On going through the Register of Midden Privies, kept in the Health Office, I find that the total number of these places left is 1121. Of these there are 483 in the four urban wards, or about 12 to every 1000 inhabitants. In these four urban wards the infectious diseases rate per 1000, in 1896 was 13.

In the two rural wards there are 638 midden privies—or rather over 88 to every 1000 inhabitants. In these two rural wards the infectious diseases rate was 39 per 1000.

In a great measure the same conditions tend to the spread of Scarlet Fever, as in the case of Typhoid. In the latter disease the infective material is mainly contained in the discharges from the bowels, and these are certainly not usually dealt with in a proper manner. The excreta find their way into the midden, where it exists, either not disinfected at all or not thoroughly disinfected—perhaps, more correctly, very inefficiently disinfected. In Scarlet Fever, matters are worse. There are hardly any excreta which do not find their way into the midden without any attempt at being dealt with. The same intestinal glands are affected as in Typhoid Fever, and the whole intestinal tract is often in a high state of inflammation or irritation and constantly throwing off highly infective material in the course of diarrhoeal complications. The Kidney, when desquamative Nephritis occurs, which it does in a large proportion of cases, crowds the urine with a further quantity of infective material, and this with soiled rags covered with natal discharges and purulent matter from glandular abscesses find their way into the yawning receptacle in the back yard there to

be disseminated by the thousand and one means which finally scatter all spores and bacteria far and wide. The wonder is that midden-privy districts are not worse off than they are as regards the incidence of Infectious Diseases.

The next point of interest is the mortality and death-rate from Zymotic Diseases. It fortunately happens that numerous as were the cases the death-rate was low, taking all the Zymotic Diseases together. The following Table shows the death-rates from the seven principal Zymotic Diseases in Southport and England and Wales respectively in 1896 :—

TABLE XXV.

	Southport.	England and Wales.
Small Pox	—	·0200
Measles	·1270	·5600
Scarlet Fever	·3810	·1800
Diphtheria.....	·0847	·2900
Whooping Cough	·1693	·4100
Fever	·0421	·1700
Diarrhoea	·2116	·5500
 Total.....	 1·0157	 Total..... 2·1800

The only Zymotic disease in which we compare unfavourably with the country at large last year is Scarlet Fever. In the other six diseases we are a long way below the national rate, and the net result is that we barely reach one-half of the Zymotic rate of the country at large.

If the basis of comparison is made a period of ten years last past, the figures come out as follows:—

TABLE XXVI.

Death-rates from Zymotic diseases for ten years ending December 31st, 1896, in Southport and England and Wales respectively—

	Southport.	England and Wales.
Small Pox	·0022	·0165
Measles	·1055	·4342
Scarlet Fever	·2307	·1980
Diphtheria	·2242	·2180
Whooping Cough	·1834	·3923
Fever	·1233	·1768
Diarrhoea.....	·1764	·6160
 Total.....	 1·0457	 Total..... 2·0528

The Zymotic disease which caused the greatest anxiety was Scarlet Fever. Of the 475 cases notified, 262 were admitted to the Hospital. Five of these died, which gives a case mortality of 1·9 %. 213 cases treated at their own homes had a loss of 13 lives, or a case mortality of 6·1 %. The greater mortality of cases treated at home was not due to any appreciable extent to the gravity of the cases rendering removal dangerous. Reluctance of parents to part with their children was the prevailing motive for declining the Hospital, and was not apparently outweighed by an adequate appreciation of the superior advantages offered by the special adaptation of the Hospital to the treatment of disease, or of the benefits to be derived by spacious, well-warmed, and well-ventilated wards, with skilled nursing, and carefully regulated dietary and hygiene.

The Notifications of Scarlet Fever came in, month by month, as follows :—

TABLE XXVII.

January	36
February	10
March	10
April	10
May	7
June	21
July	70
August	64
September	69
October	85
November	55
December	38
 Total.....	 475

During the course of the year 1896 two Elementary Schools were closed, with a view to checking the spread of Scarlet Fever, viz.:—St. Cuthbert's, Churchtown, Aug. 24th to Sept. 14th, and St. John's Schools, Crossens, from Nov. 3rd to Dec. 1st. I am doubtful whether much good was done by the first-named closure, but the second was more or less useful, as the notifications in December, 1896, and January, 1897, showed, as regards the Crossens district.

The Measles Cases came to our knowledge month by month, as follows :—

TABLE XXVIII.

January	6
February	26
March	83
April	10
May	65
June	0
July	2
August	0
September	0
October	59
November	2
December	2
Total.....	255

The Elementary Schools closed on account of Measles were:—St. Simon's and St. Jude's, from March 12th to April 6th; Wennington Road, March 12th to April 6th; St. Luke's, April 9th to May 9th; All Saints', April 9th to May 9th; and St. Cuthbert's, from April 18th to May 18th. These closures were certainly useful. The outbreak in October was very peculiar, being sudden and circumscribed, and the disease, not being notifiable, the cases came to our knowledge in batches as the School Attendance Officers became aware of non-attendances on account of alleged sickness from week to week. The subsidence was so close upon the heels of the outbreak that no closure seemed to be required, and the result justified the course taken.

Typhoid Fever was, happily, not prevalent. The cases notified in 1896 were:—

TABLE XXIX.

January	6
February	1
March	0
April	0
May	1
June	0
July	3
August	4
September	1
October	1
November	1
December	0
Total.....	18

Diarrhoea in 1896 showed a great improvement upon 1895. The rate was only half that of 1895, and less than two-fifths of the Diarrhoea rate all over the country.

The various Tables given sufficiently set forth the facts connected with the other Zymotic Diseases.

The admissions to Hospital for Infectious Diseases in 1896 were as follows :—

TABLE XXX.

Typhoid Fever	6
Diphtheria	2
Scarlet Fever.....	262
Continued Fever	1
Rotheln	1
	—
	272

In 1895 the admissions were only 80.

The total admissions to the Hospital since it was opened have been :—

TABLE XXXI.

Small Pox	24
Typhoid Fever	63
Scarlet Fever.....	658
Diphtheria	17
Measles	11
Chicken Pox	1
Continued Fever	1
Rotheln	1
In Error.....	3
	—
Total	779

That errors in diagnosis should be under 4 per 1000 cases seems to me to be very creditable to the Medical Profession of the District. The Metropolitan Asylums Board returns disclose a very different result.

This is the proper place to put on record the erection of another small Pavilion, divided into Nurses' Room, Cooking Place, two Wards with three beds in each, and necessary Offices. It was put up at the height of the Scarlet Fever Epidemic, and proved very useful in enabling us to take in Typhoid Fever cases. There are now four Pavilions for patients, divided into eight Wards; one central block for Administrative Purposes; seven

Sleeping Apartments for Nurses' ; one Disinfecting House with a Washington Lyon's Steam Disinfector ; a Wash-house with drying chamber ; an Ambulance Shed ; Store Shed ; and Mortuary ; on the Hospital premises.

The following leaflets have been drawn up by myself at the request of your Committee, for distribution at homes where Infectious Disease occurs. One of each is left at every house by the Inspectors, whether the disease is notifiable or not. It is hoped that by degrees the advice given may be followed, and may prove still more effectual than the same advice which has constantly been orally given for many years past by this department :—

BOROUGH OF SOUTHPORT, HEALTH OFFICE.

SCARLET FEVER.

It is dangerous and illegal to send any Child or Person who has suffered from this Fever, or any other dangerous Infectious Disease, to School, or into any public place, until free from Infection, however mild the case may be.

The Law requires that every person in charge of such a case shall give immediate notice of the existence thereof to the Medical Officer of Health, whether this has been already done by a Medical Man or not.

The Corporation provides hospital accommodation for infected cases, and disinfects Houses, Clothing, Bedding, Furniture, &c., when necessary, at the public expense. All persons living within the Borough are at liberty to avail themselves of these provisions.

When a Scarlet Fever patient is nursed at home, no Child from the same house should attend school.

Personal infection continues until peeling is completed, and this is seldom the case until SIX WEEKS after the date of rash. The soles of the feet are usually the last parts to become clear.

As soon as the peeling is over, a Medical Certificate to this effect should be obtained, and forwarded to the Medical Officer of Health (at the Health Office), who will give all necessary directions for disinfection.

By Order of the Health Committee.

HENRY H. VERNON, M.D.,

Medical Officer of Health.

CORPORATION OF SOUTHPORT, HEALTH OFFICE.

INSTRUCTIONS AS TO INFECTIOUS DISEASES.

With a view to lessen the mortality from infectious disease—particularly from Measles, Diphtheria, Typhoid Fever, and Scarlet Fever—the attention of parents and others is drawn to the following precautions, which should in all cases be adopted :—

Communications with infected houses or persons should be carefully avoided.

The house, back-yard, lobby, gullies, and ashpit, should be kept as clean as possible.

If the disease be contracted, the patient—if not removed to hospital—should be at once placed in a bedroom removed as far as possible from the living rooms of the house, furnished with a fire-place, and from which all carpets, bed-hangings, etc., have been removed.

The house and sick room should be ventilated as much as possible, without exposing persons directly to draught.

The door of the sick room should be covered with a sheet kept wet with a mixture of carbolic acid and water (one part of the acid to forty of water), and the floor of the sick room should be washed daily with the same fluid.

The mother, or some other one person, should act as nurse, and should associate as little as possible with the other members of the household.

Visitors, especially children, should on no account be allowed to enter the house or sick room.

Children living in infected houses, or recovering from disease, must not attend school until after the house has been disinfected.

No books must be obtained from the public libraries.

Disinfectants should be freely used about the house, and all articles of clothing, eating utensils, etc., should be placed in water containing some disinfectant before being removed from the sick room.

The patient's discharges, especially in cases of typhoid fever, should be received in a utensil containing a disinfectant.

Pieces of rag which can at once be burnt should in all cases be used instead of

pocket handkerchiefs, but especially in cases of diphtheria, where infection is readily conveyed by the discharges from the mouth and nose.

All cups, spoons, and other like articles used by the sick person, should be washed in boiling water before being used by other persons. In order to insure disinfection, they must remain in actually boiling water for five minutes.

All clothes, linen, wraps, and stuffs from the sick room should be boiled for half-an-hour before being washed.

Nurses and others attending the sick person should wear washing clothes, and should always wash and disinfect their hands and faces, and change their shoes and outer clothes, before going off duty.

Visitors should, if possible be kept away from the house, and sick room ; but, when admitted, should be made to follow the directions given above for nurses and attendants.

The disinfection of houses, furniture, clothing, etc., which have been exposed to infection, is undertaken by the Health Department without charge.

Medical advice should be obtained on the first appearance of the disease, and the instructions of the medical attendant should be carefully followed. Many deaths result from a neglect to obtain such assistance until too late.

It should be remembered that all cases, however mild, are capable of spreading infection, and that a severe case may be the result of contact with a mild one.

During the illness, and for some time afterwards, when the patient is convalescent, great care should be taken to avoid danger from colds. Many children die from croup, bronchitis, or inflammation of the lungs, contracted during recovery from measles ; or from dropsy, the result of a chill during the process of desquamation—or peeling of the skin—after scarlet fever.

In cases of death, the coffin should contain some disinfectant—as carbolic acid powder—and should be closed up at once. The funeral should take place as soon as possible, and no unnecessary invitations should be given.

After recovery or death, the house should be thoroughly fumigated and cleansed. Application should be made to the Sanitary Office.

Disinfectants may also be gratuitously obtained at the Sanitary Yard.

The following form of Notice has also been directed to be sent to the School Attendance Officers, immediately upon reception of a notification of a case of Infectious Disease. The object of this notice is to put the said officers upon the *qui vive* as to the existence of cases of disease, and to remind them that children must not be pressed to attend school from infected houses, nor, until themselves entirely free from infection.

HEALTH OFFICE, TOWN HALL,

Southport, 189

To the School Attendance Officer.

Sir,

The following cases of Infectious Disease have been this day notified to me :—

Name.	Residence.	Disease.	School Attended.

HENRY H. VERNON, M.D., M.O.H.

This action is supplemented by sending the following notice to the Managers of the School where the patient, if a child, has attended :—

HEALTH OFFICE, TOWN HALL,

Southport, 189

To the School Managers.....School.

The Medical Officer of Health reports the following cases of sickness as having been notified to him :—

Name.	Residence.	Disease	School.

HENRY H. VERNON, M.D., M.O.H.

The work of the Inspectors of Nuisances and the Meat Inspector during 1896 includes :—

TABLE XXXII.

Nuisance Inspections not reported to the Health Committee	9314
Nuisances reported to Health Committee	1469
Enquiries into Zymotic Diseases (notifiable)	542
Do. do. (not notifiable)	279
Patients removed to Hospital	272
Houses, or parts of Houses, disinfected on account of disease (Zymotic).....	448
Day Visits to Common Lodging-houses	104
Night do. do. do.	118
Inspections of Workshops not reported to Health Committee	249
Do. do. reported to Health Committee	33
Inspections under Shop-hours' Act	156
Visits to Cow-sheds and Milk-shops	152
Cow-sheds reported to Health Committee	65
Visits to Butchers' Shops	1804
Do. Market Hall..	272
Do. Public Slaughter-houses	262
Do. Private do.	118
Do. Shrimp Potting-houses	46

and other miscellaneous work not readily tabulated—making a total of 15,703 visits at the least, as several of the items in the preceding table involve two or three visits in each case.]

TABLE XXXIII.

The various inspections made and notices served during 1896 resulted in orders being obtained for the execution of work to the number of 907, which resulted, together with the work done under our powers, in separate jobs, 1271, viz.:—

Houses re-drained	141
House-drains unstopped	502
Midden-privies converted into Bristol ejects, <i>i.e.</i> —waste water-closets	108
Wet ashpits converted into dry	86
Sundry nuisances, involving structural alterations, abated	434

The total number of midden-privies abolished in nine years ending Dec. 31st, 1896, is 1359.

The effect of this abolition of midden-privies has been, of course, to greatly diminish the amount of wet refuse fouled by human excreta. In 1888 the weight of this sort of stuff removed was 4756 tons. In 1896 it was reduced to 2383 tons. It would have been better still if there had been none at all, except from premises not within the statutory distance from a public sewer which enables the Corporation to insist upon drainage into a sewer.

The refuse from dry ashpits—*i.e.*, ashpits not containing human excreta—was 9490 tons in weight in 1888, and 17,791 tons in 1896.

The total weight of refuse removed in 1896 was—

Dry	17791 tons
Wet.....	2383 ,,
Total.....	20174 ,,

The total refuse removed in 1888 was 14,246 tons.

The weight of refuse per head of population removed in 1888 was slightly over 7 cwt. and 1 qr. In 1896 it was rather more than 8 cwt. and 2 qrs

This rather seems to imply that the scavenging has somewhat improved.

The total number of ashpits emptied in 1896 was—

Midden or wet	6,070
Dry	84,060
Total.....	90,130

Measured in loads the quantity was—

Wet refuse	1594 loads
Dry ,,,	14216 ,,

The weight of a dry load averaged 1 ton 5 cwt. 0 qrs. 3 lbs. The weight of a wet load 1 ton 10 cwt. nearly.

It is obvious that, if there were no wet loads, there would have been 400 tons less mere water to haul about the town during the year—not to mention the comparatively innocuous character of the dry refuse as compared with the wet.

I cannot help reiterating my conviction that all midden-privies within the statutory distance of a sewer ought to be converted into waste water or ordinary water-closets. The piecemeal system of dealing with them from fortnight to fortnight in committee is most unsatisfactory. There are always other urgent matters which must, more or less, take precedence of "conversion" cases, or, at any rate, have concurrent attention, and certainly cannot be put on one side in any case. The 1121 midden-privies would, probably, yield somewhere about 1000, which might be made a clean sweep of, greatly to the sanitary advantage of the Borough. It only remains to devise a scheme.

I am, Gentlemen,

Yours obediently,

HENRY H. VERNON, M.D. & F.R.S. EDIN.,

Medical Officer of Health.



